



## American and Hickory Shad Restoration on the Nanticoke River

### Nanticoke Shad Stockings:

Number of American Shad and Hickory Shad Fry Stocked into the Nanticoke River Drainage in Delaware 2000-2010.

Year	American Shad	Hickory Shad
2000	91,000	1,250,000
2001	89,000	1,250,000
2002	123,347	986,058
2003	330,000	536,000
2004	187,000	1,100,000
2005	671,818	490,000
2006	538,639	247,000
2007	230,910	0
2008	573,891	0
2009	713,073	0
2010	566,588	0
<b>Total</b>	<b>4,115,266</b>	<b>5,859,058</b>



### Shad Population Monitoring

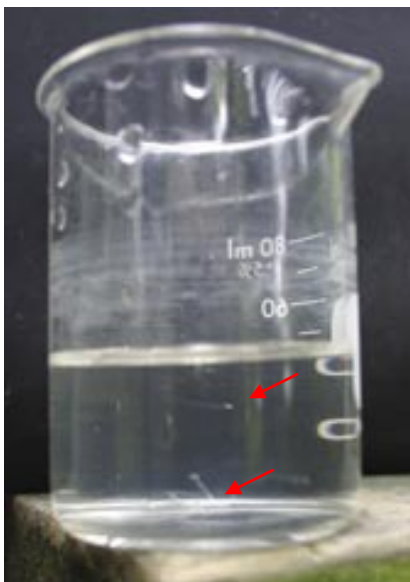
Shad restoration is occurring along the entire east coast due to dwindling population numbers. This trend is most apparent in the Chesapeake Bay. Adult American and hickory shad are monitored each spring to gauge their abundance in the headwater streams of the Nanticoke River, Delaware's only major tributary of the Chesapeake Bay. Adult shad are captured using an electrofishing boat.

Juvenile shad numbers are monitored during the summer months using a large haul seine in the main Nanticoke River and Broad Creek. This 150 foot long seine net is anchored to shore and set from a boat in a semi-circle pattern then hauled in by hand.



At Right: A juvenile American shad (top) and hickory shad (bottom)

### Nanticoke Shad Hatchery



Barely visible to the eye, tiny translucent shad larvae swim around in a beaker. They are stocked into the Nanticoke River at 3 days of age.

Each spring the Division collects adult shad from Deep Creek and places them in a 4,000-gallon spawning tank located at the Nanticoke Shad Hatchery near Bethel. Spawning occurs in this large tank and the fertilized eggs are collected, cultured and allowed to hatch a few days later. The tiny shad larvae (fry) are stocked in the Nanticoke River and tributaries, where they will remain for their first year of life before migrating into the Chesapeake Bay and then the ocean until they mature in four to six years.

Unlike many species of anadromous fish such as salmon, which spend most of their lives in saltwater but return to freshwater to spawn, American shad do not die after spawning and may return to their natal river in the Mid-Atlantic region to spawn again. The majority of the adult shad used in the hatchery effort are released, after their brief captivity, back into the Nanticoke River to spawn another year.

American shad are an important species native to the East Coast, and are targeted by recreational and commercial fishermen. The Nanticoke River stock of shad is considered depleted and is undergoing a long-term restoration program. Shad are an important link in the food chain for predators such as largemouth and striped bass. This spring about 567,000 shad were stocked from the Nanticoke Hatchery in 2010.

For more information on the Shad Restoration Project, please contact:  
Mike Stangl, Fisheries Biologist, Delaware Division of Fish & Wildlife, 3002 Bayside Drive,  
Dover, DE 19901 (302) 735-2960  
michael.stangl@state.de.us